## **REMARKS**

## 1. <u>Claims Amendments</u>

Claim 8 has been amended to capture an embodiment in which the catalytic fluorination of saturated or olefinic halogenated hydrocarbon(s) is accomplished by using the product by process catalyst.

Claims 8 and 11-24 have been amend for clarity.

No new matter has been added by any of these amendments.

## 3. <u>35 U.S.C. §102 & §103</u>

Claims 8 and 11-24 are rejected under §102 as being anticipated by United States Patent No. 5,523,500 to Cheminal et al. (Cheminal '500) and/or under §103 as being obvious over Cheminal '500. Applicant traverses this rejection.

Initially, Cheminal '500 relates to mass catalysts based on chromium and nickel oxides obtained from a process including fluid colloidal solution (sol) deposition. Sol-gel techniques, such as one used in Cheminal '500, produce unique pore structures that are defined by the mircostructure. Hence, the catalysts in Cheminal '500 were captured via a product by process method and are not of the same structure as claimed by Applicant, which are not produced using sol-gel techniques.

The examiner has not shown that the Cheminal '500 discloses or renders obvious the use of a catatalyst prepared by using a chromium oxide having a BET specific surface area of greater than 150 m²/g and a pore volume of greater than 0.15 ml/g. The catalysts in Cheminal '500 are not created by starting with a chromium oxide material that has a surface area greater than 150 m²/g and a pore volume size of greater than 0.15 ml/g. By impregnating the chromium oxide with a solution of nickel, Applicant has created an improved catalysts. As can be seen from the specification of Cheminal '500 (including the examples), Cheminal '500 does not disclose a catalyst that includes both limitations.

As stated in the specification and as recognized by persons with ordinary skill in the art, the BET specific area and the pore volume are controlled by the selection of the chromium oxide and by the deposition technique. As stated in the specification, the form of the Chromium oxide

used "very clearly" establishes the form of the final catalyst and is not detrimentally affected by the impregnation stage. Paragraph 011. While the nickel compound would take up some of the pore volume and would reduce the specific area, Applicant submits that the catalysts would not be the catalysts of the type disclosed in Cheminal '500.

Finally, the examiner's request for examples to compare the process using the catalyst of Cheminal '500 to the claimed catalysts is unnecessary. Specifically, as Applicant's catalysts are noval, the fact that they performs better or worse than the catalysts of Cheminal '500 is of no consequence. In fact, the catalysts as claimed by Applicant are not disclosed by Cheminal '500, so Applicant is <u>not</u> relying at this point on unexpected results. Applicant's process as claimed is directed towards using Applicant's catalysts, creating by impregnation of chromium oxide with the specific properties, to process saturated or olefinic halogenated hydrocarbon(s).

Accordingly, as the examiner has not shown that Cheminal '500 discloses method for fluorination using Applicant's novel catalysts, Applicant submits that the rejections based on Cheminal '500 are improper and should be withdrawn.

## **CONCLUSION**

Applicants submit that the patent application is in condition for allowance and respectfully request such action. If the examiner has any questions that can be answered by telephone, please contact the patent attorney of record at the address and telephone number listed below.

Respectfully submitted, SMITH, GAMBRELL & RUSSELL, LLP

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